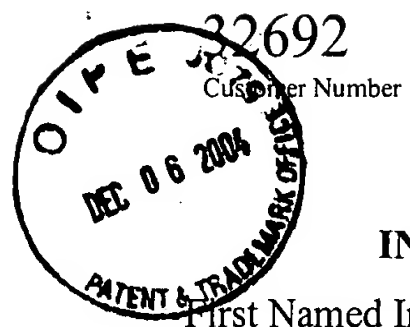


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Patent
Case No.: 54919US005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: TOYOOKA, KAZUHIKO
Application No.: 09/980911 Group Art Unit: 2871
Filed: June 8, 2000 Examiner: H. Nguyen
Title: OPTICAL LAMINATED BODIES, LIGHTING EQUIPMENT AND
AREA LUMINESCENCE EQUIPMENT

BRIEF ON APPEAL

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

<u>CERTIFICATE OF MAILING</u>	
I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:	
<u>12-3-04</u>	<u>Jim A. Elfstrom</u>
Date	Signed by:

Dear Sir:

This is an appeal from the Office Action mailed on September 20, 2004 (Advisory Action). The fee required under 37 CFR § 1.17(c) for the appeal should be charged to Deposit Account No. 13-3723.

REAL PARTY IN INTEREST

The real party in interest is 3M Company (formerly known as Minnesota Mining and Manufacturing Company) of St. Paul, Minnesota and its affiliate 3M Innovative Properties Company of St. Paul, Minnesota.

RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals or interferences.

STATUS OF CLAIMS

In the July 12, 2004 Office Action, the pending claims 2-5 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Gunjima et al. (US 5,587,816A) ("Gunjima") in view of Liu et al. (US 6,208,466) ("Liu"). Claim 5 was rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. On September 7, 2004, the Applicant filed a response traversing the Examiner's rejections. An Advisory Action was issued on September 20, 2004, confirming the rejections. Claims 6-10 have been withdrawn from consideration as directed to non-elected species. A listing of the pending as well as withdrawn claims is attached to this Brief.

STATUS OF AMENDMENTS

No amendments have been filed after the final rejection.

SUMMARY OF THE CLAIMED SUBJECT MATTER

The appealed subject matter is directed to a lighting device and an area luminescence device including a lighting device. Independent claim 2 is directed to a lighting device including an optical laminated body including a polarizing layer, a first transparent film disposed closely to the front surface of the polarizing layer, and a second transparent film disposed closely to the back surface of the polarizing layer. The polarizing layer includes a reflective polarizing film, and both of the first transparent film and the second transparent film are diffusive films. The lighting device further includes a light source supplying light to the optical laminated body through a light entry surface of the first transparent film of the optical laminated body, and a lens film disposed between the light source and the optical laminated body. The lighting device provides diffused-polarized light emitted from a light emitting surface of the second transparent film of the laminated body.

Claims 3-5 all depend on claim 2. Claim 3 is directed to an area luminescence device including the lighting device of claim 2 and a transparent optical body illuminated by the lighting device from a back surface of the optical body. Claim 4 is directed to the area luminescence device of claim 3, wherein the optical body comprises an LCD panel. Claim 5 is directed to the

area luminescence device of claim 3, wherein there is no diffusive plate disposed between the lighting device and the optical body.

The present application provides lighting devices and area luminescence devices that can have fewer parts than traditional devices, thereby simplifying their operation and production. In addition, lighting devices and area luminescence devices of the present application can have fewer optical surfaces thereby preventing optical losses due to interfacial reflection.

ISSUES TO BE REVIEWED ON APPEAL

Whether in view of 35 U.S.C. §103(c) Liu was improperly used as a reference in the outstanding rejection of the present application under 35 U.S.C. §103(a).

Whether the Examiner has established a prima facie case of obviousness under 35 U.S.C. § 103 (a) with regard to claims 2-5.

Whether claim 5 complies with the written description requirement as required by 35 U.S.C. § 112, first paragraph.

GROUPING OF CLAIMS

The appealed claims stand or fall together for the purposes of this Appeal. No admission, however, is being made with respect to the obviousness of the subject matter of the dependent claims with respect to the subject matter of the independent claim.

ARGUMENT

1. Examiner's Rejections Under 35 U.S.C. § 103 (a)

In the outstanding Office Action mailed July 12, 2004, the Examiner rejected claims 2-5 under 35 USC § 103(a), as being unpatentable over Gunjima in view of Liu. The Examiner argued as follows:

In regard to claims 2-3, Gunjima et al. teach (Fig. 6) an area luminescence device comprising a light device and an optical body 41 illuminated by the light device from a back surface of the optical body wherein

- the optical body comprising an LCD panel (claim 4);
- there is no single diffusing plate disposed between the light device and the optical body (claim 5);
- the light device comprises:

- (A) an optical laminated body comprising a polarizing plate (polarized light separator 38),
- (B) a light source supplying light to the optical laminated body,
- (C) a lens film 37 disposed between the light source and the optical laminated body.

However, Gunjima et al. fail to disclose the optical laminated body comprising a reflective polarizing film disposed between diffusive films, which are in front and back of a reflective polarizing film.

Liu et al. teach (Fig. 9, col. 16 lines 1-9) the optical laminated body comprising a reflective polarizing film 903/901 disposed between diffusive films 905/911, which are in front and back of a reflective polarizing film for reducing glare (col. 24 lines 66-67).

The Examiner then claimed that it would have been obvious to a person of ordinary skill in the art to combine the teachings of Gunjima and Liu.

With regard to the Examiner's rejections of claims 2-5 under 35 USC § 103(a), as being unpatentable over Gunjima in view of Liu, the Applicant respectfully submits that in view of 35 U.S.C. §103(c) Liu is unavailable as a reference for use in a rejection under 35 U.S.C. §103(a), because Liu and the present application were, at the time the invention of the present application was made, owned by 3M Innovative Properties Company or were subject to an obligation to assignment. 35 U.S.C. § 103 (c) states:

- (c) Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

While Liu's filing date of November 25, 1998 is before the priority date of the present application (June 9, 1999), Liu's date of issuance of March 27, 2001 is after that date. Therefore, without admitting that Liu is prior art to the present application, the Applicant respectfully submits that it could only be such under one or more of subsections (e), (f), and (g) of 35 U.S.C. § 102. The common ownership of Liu and the present application is apparent from the assignee information provided on the face of Liu and from the Assignment submitted in the present application and recorded on 11/08/2001 at Reel/Frame: 012532/0253. Therefore, Liu was

improperly used to reject the present application under 35 U.S.C. §103(a), and the Applicant respectfully requests withdrawal of this rejection.

Furthermore, claims 2-5 are not obvious over Gunjima in view of Liu. In order to establish a prima facie case of obviousness under 35 U.S.C. § 103 (a), three basic criteria must be met. (See, e.g., MPEP 2143) First, there must be some suggestion or motivation in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the references or to combine reference teachings. Second, there must be reasonable expectation of success. Finally, the prior art references must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and cannot be based on applicant's disclosure. The mere fact that references can be combined or modified does not render the resultant combination obvious unless that prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1410 (Fed Cir. 1990) (emphasis added).

Liu does not teach or suggest all of the elements of claims 2-5. For example, Liu does not teach placing a lens film between the optical laminated body and the light source. As the Examiner acknowledges, Gunjima fails to disclose an optical laminated body comprising a reflective polarizing film disposed between diffusive films closely to the reflective polarizing film's front and back surfaces, as required by the independent claim 2, and, consequently, by the dependent claims 3-5. The Examiner asserts that the polarized light separator 38 shown in Fig. 6 is an optical laminated body comprising a polarizing plate. However, the reference neither teaches nor suggests at least "a first transparent film disposed closely to a front surface of the polarizing layer, and a second transparent film disposed closely to a back surface of the polarizing layer ... and both of the first transparent film and the second transparent film are diffusive films," as required by the independent claim 2.

On the contrary, the embodiments shown in Figs. 1-3 of Gunjima use a light diffusing sheet 8 (col. 12, line 55) to widen the viewing angle, while the present application seeks to avoid using diffusing sheets that are separate from the laminated optical body including a polarizing element. Therefore, neither Liu nor Gunjima teach or suggest all elements of the pending claims. In addition, the references themselves or the knowledge generally available to one of ordinary

skill in the art contain no suggestion or motivation to modify the references or to combine reference teachings with a reasonable expectation of success.

For at least these reasons, the Examiner has failed to make a prima facie case of obviousness of claims 2-5. Accordingly, the Applicant requests reversal of the Examiner's rejections of these claims.

2. Examiner's Rejections Under 35 U.S.C. § 112

Claim 5 has been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement, because the claim allegedly contains "subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention." The Applicants traversed this rejection and directed the Examiner's attention to page 1, lines 6-24, and Fig. 1, which describe and show traditional devices including a lower diffusive plate 92 disposed between a light source 91 and an optical film 93 and separated therefrom by air layers 94-1 and 94-2. Some disadvantages of such traditional devices include optical losses due to reflections at the component/air interfaces, which lower light transmission efficiency. (Specification, p. 1, lines 25-30).


Optical laminated bodies of the present disclosure can allow reduction of the number of parts, as well as reduction of the number of optical surfaces of the optical system. (Specification, p. 2, lines 1-5, p. 3, lines 3-10). In particular, as it is summarized at page 2, line 31- page 3, lines 1-3, of the Specification, "[s]ince the optical laminated bodies comprise diffusive films, an upper diffusive plate and/or a lower diffusive plate of the prior art are not required when the bodies are incorporated into the area luminescence equipment." Accordingly, an exemplary device according to the present application shown in Fig. 3 and discussed at page 10, line 25 – page 11, line 18, of the Specification, includes a light guiding plate 1 and an optical laminated body 2. The optical laminated body 2 is disposed to receive light from the light emitting surface 11 of the light guiding plate 1 through an air layer 51, while a diffusive plate is not shown or described. Therefore, claim 5 does not contain new matter and does not fail to comply with the written description requirement. Accordingly, the Applicant requests reversal of the Examiner's rejection of claim 5 under 35 U.S.C. § 112.

CONCLUSION

For the foregoing reasons, appellants respectfully submit that the Examiner has erred in rejecting claims 2-5 of this application under 35 USC § 103 (a) and claim 5 under 35 U.S.C. § 112. Please reverse the Examiner on all counts.

Respectfully submitted,

12-3-04
Date

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Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833

CLAIMS APPENDIX

1. (canceled)
2. (previously amended) A lighting device comprising equipment that illuminates an illuminating body, characterized in that the lighting equipment comprises:
 - (A) the an optical laminated body comprising of claim 1
 - (i) a polarizing layer,
 - (ii) a first transparent film disposed closely to a front surface of the polarizing layer, and
 - (iii) a second transparent film disposed closely to a back surface of the polarizing layer, wherein the polarizing layer comprises a reflective polarizing film, and both of the first transparent film and the second transparent film are diffusive films, and
 - (B) a surface-light source supplying light to the optical laminated body, through a light entry surface light-entrancing surface (an opposite surface to a surface contacting closely to the polarizing layer) of the first transparent film of the optical laminated body, and
 - (C) a lens film disposed between the light source and the optical laminated body,
the light illuminating the illuminating body is lighting device providing diffused-polarized light emitted from a light emitting surface (an opposite surface to a surface contacting closely to the polarizing layer) of the second transparent film of the laminated body.
3. (previously amended) An area luminescence equipment device comprising the lighting equipment device of claim 2; and a transparent illuminating optical body illuminated thereby by the lighting device from a back surface of the illuminating optical body;
~~characterized in that there is no diffusive plate disposed between the lighting equipment and the illuminating body.~~
4. (previously presented) The area luminescence device of claim 3, wherein the optical body comprises an LCD panel.

5. (previously presented) The area luminescence device of claim 3, wherein there is no diffusive plate disposed between the lighting device and the optical body.
6. (withdrawn) A lighting device comprising:
- (A) an optical laminated body comprising
- (i) a polarizing layer,
- (ii) a first transparent film disposed closely to a front surface of the polarizing layer, and
- (iii) a second transparent film disposed closely to a back surface of the polarizing layer, wherein the polarizing layer comprises a reflective polarizing film, and both of the first transparent film and the second transparent film are diffusive films, and
- (B) a light source supplying light to the optical laminated body through a light entry surface of the first transparent film of the optical laminated body, wherein the light source comprises a plurality of diffusing points of a light diffusive substance disposed on a surface of the light source,
- the lighting device providing diffused-polarized light emitted from a light emitting surface of the second transparent film of the laminated body.
7. (withdrawn) An area luminescence device comprising the lighting device of claim 6 and a transparent optical body illuminated by the lighting device from a back surface of the optical body.
8. (withdrawn) The area luminescence device of claim 7, wherein the optical body comprises an LCD panel.
9. (withdrawn) The area luminescence device of claim 7, wherein there is no diffusive plate disposed between the lighting device and the optical body.
10. (withdrawn) The lighting device of claim 6, further comprising a lens film disposed between the light source and the optical laminated body.